

The
Kanneberg
Roofing
Co.,

Canton,
Ohio.



THE LIBRARIES
COLUMBIA UNIVERSITY

AVERY LIBRARY

ILLUSTRATED CATALOGUE
OF THE
KANNEBERG ROOFING Co.

MANUFACTURERS OF

THE KANNEBERG PATENT
FOLDED LOCK SEAM STEEL ROOFING,
CORRUGATED IRON,
CRIMPED IRON, BEADED IRON,
SHEET METAL WEATHER-BOARDING,
FIRE-PROOF DOORS AND SHUTTERS,
METALLIC PAINTS,
EAVE TROUGH, CONDUCTOR PIPE,
RIDGE ROLL, VENTILATORS, ETC.

OFFICE AND WORKS:

104 TO 112 EAST SEVENTH STREET
CANTON, OHIO.



Announcement.

In presenting you with our Catalogue for 1892, we respectfully call your attention to the increase in variety of goods we manufacture.

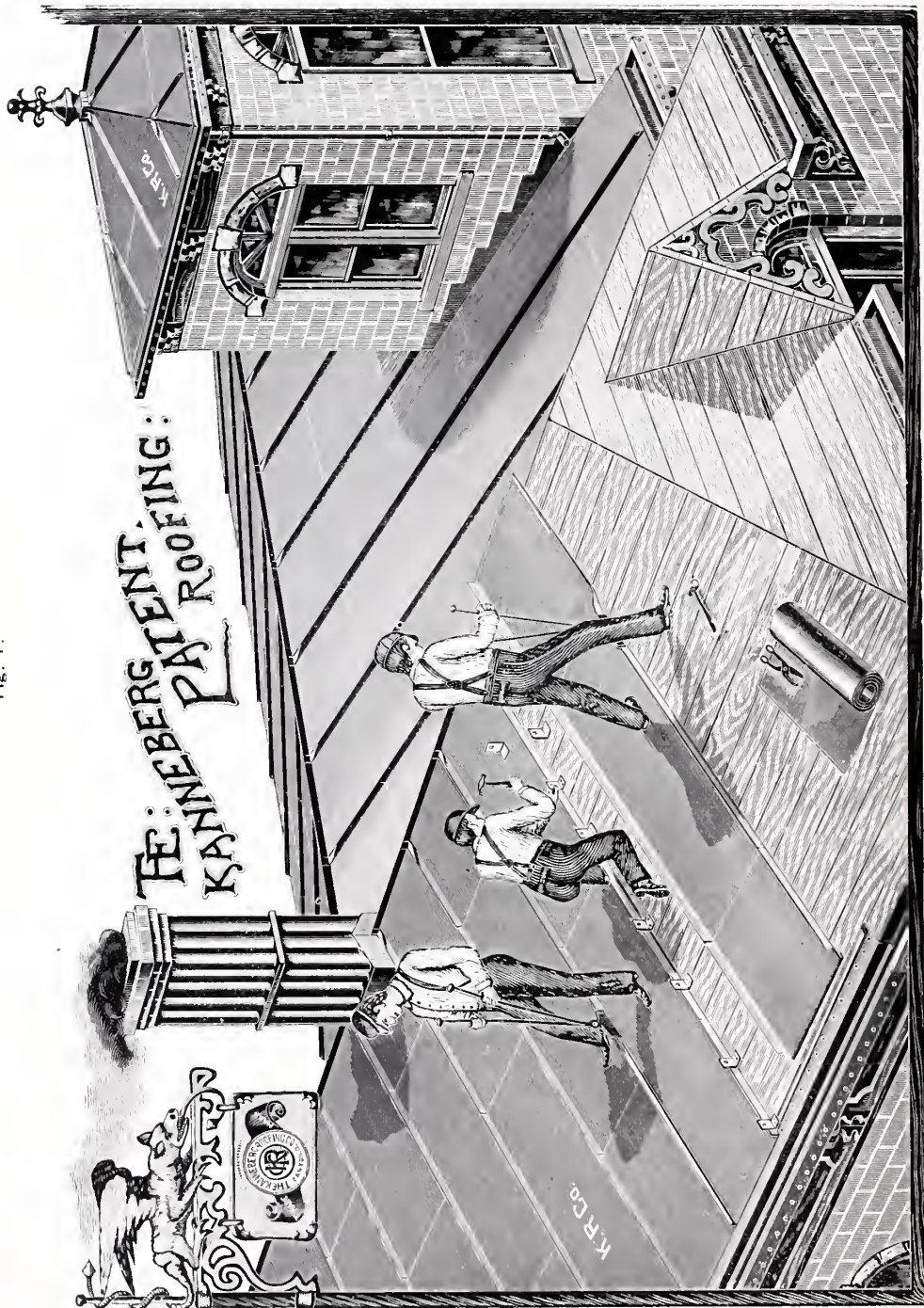
When in need of a superior quality in our line, give us a call. You will find that we pay strict attention to the wants of customers, carefully select all materials, give full weight and full measure.

Have recently increased our facilities and are better able than ever before to dispatch promptly all orders entrusted to us. Soliciting your patronage, we are,

Respectfully yours,

THE KANNEBERG ROOFING CO.

Fig. 1.



THE KANNEBERG PATENT

Folded Lock Seam Steel Roofing.

Is made from Genuine Bessemer Steel and Siemens-Martin (open hearth hammered) Steel.

Each sheet is $27\frac{1}{4}$ inches wide by 96 inches long and of No. 27 Birmingham Gauge.

Every sheet is carefully inspected and imperfect ones not used.

The edges are trimmed by squaring shears and the sheets thoroughly painted on both sides with Red Iron Ore Paint, or Graphite Paint, if preferred. (Paint, page 30.)

The sheets are connected at ends by water-proof cross locks.

The roofing is put up in rolls containing 100 square feet (1 square) unless otherwise ordered.

We cut strips to any special length, but only when specified in feet and inches by the buyer. Each roll is prepared for shipping by wrapping it up in heavy paper secured by wire and labeled inside with a label bearing our trade mark and showing the number of square feet contained in the roll. A square of our Lock Seam Steel Roofing consists of a strip $27\frac{1}{4}$ inches wide by 50 feet long (together with the necessary cleats) and will cover 100 square feet on the roof, each strip covering 24 inches in width.

It may be applied to sheathing boards, lath (3 to 4 inches apart) or over the old shingles. Sheathing boards are preferable.

Is in use in every State and Territory in the United States.

Is suitable for all kinds of buildings and can be used on as flat a surface as $\frac{3}{4}$ inch fall to the foot, but for very long rafters the pitch should be greater. Where sulphur fumes, steam or warm air will come in direct contact with under side use our Sheathing Paper. (Page 29.)

Calaminated Steel, Galvanized Steel and American Tin

We also prepare in the same manner as our Bessemer and Siemens-Martin Steel. They are especially adapted for flat roofs, gutters, valleys, etc., where soldering is required.

We furnish the sheets, 9, 10, 12, 15, 18, 24, $27\frac{1}{4}$, 30 and 36 inches wide by 96 inches long, or soldered and any length, painted or unpainted, but consider paint a necessity to all metals exposed to the weather.

The Bessemer and Siemens-Martin Steel and American Tin weigh 75 pounds to the square, the Calamined and Galvanized Steel 83 pounds to the square.

Tools

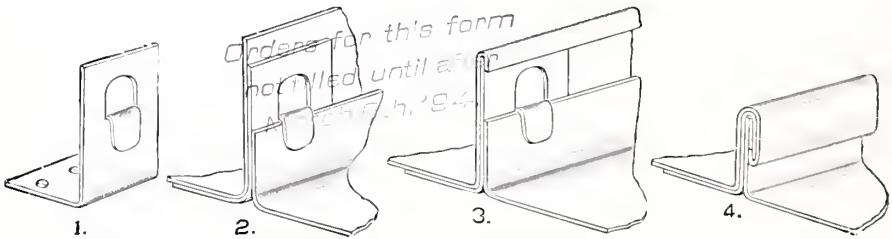
Used to apply our Lock Seam Steel Roofing are :

One 1 inch Seamer,	One $2\frac{1}{4}$ -inch Tongs,
One 2-inch Seamer,	One pair Shears,
One 1-inch Tongs,	One Hammer,
One Mallet.	

The above named tools are made especially for our Lock Seam Steel Roofing and are always shipped with it, except to agents having a set of their own. We loan the tools and make no charge for their use, unless broken, if promptly returned as soon as roofing is laid; if not so returned they will be considered sold. The customer is expected to return them by freight, attaching the card which we mail him with invoice, and mail us Bill of Lading. We charge an estimate cost for return freight.

The Kanneberg Patent Plan of Construction.

Fig. 2.

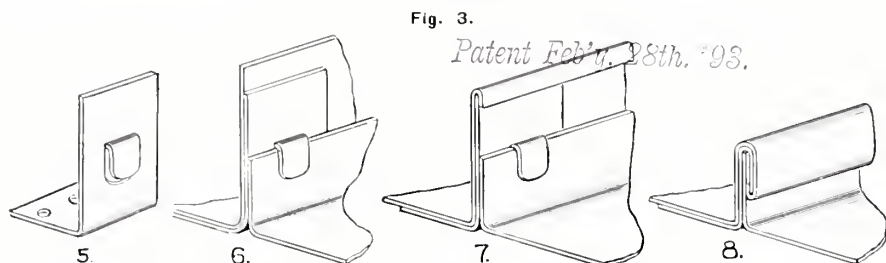


(1.) The cleat or fastening is made of Bessemer steel, is 2 inches high by $2\frac{1}{4}$ inches wide and is secured to the sheathing boards by 2 steel nails. (Nails, page 31.)

(2.) The 1-inch flange turned up with the 1-inch tongs and the $2\frac{1}{4}$ -inch flange turned up with the $2\frac{1}{4}$ -inch tongs, with the cleat in place.

(3.) Same as (2) with the $\frac{1}{4}$ -inch hem seamed over the cleat with the 2-inch seamer.

(4.) The upper half of the unfinished seam as shown in (3) seamed over the 1-inch flange with the 1-inch seamer, thus completing the seam.



Shows modified form of cleat.

Flashings, gutters, valleys, ridge and hip seams are easily and quickly made by our method. For full instructions concerning The Kanneberg Patent Folded Lock Seam Steel Roofing, see illustrated instruction sheet, mailed with price list.

Advantages.

Steel is better than iron for roofing; is a purer metal, stronger and more durable; is soft and pliable and can be double seamed without breaking.

Our plan of construction while extremely simple, is very effective and can be applied by any ordinary mechanic. The seams are continuous. Contraction and expansion is provided for. It conforms to the surface with uniform tension. To make a good roof you must have good material. We use only the best, therefore it has every advantage a roof can possess.

It will not crack or slide off. Is lightning, storm and water proof. Insurance risks are reduced. Is durable, and as long as it does not rust, it will last, and if it is kept painted it will not rust. A coat of our mixed paint (page 30) applied once in three or four years is sufficient, excepting when especially exposed to sulphur or other corrosives, then it should be painted oftener.

Quality.

Next to the foundation of any building, the roof should be considered most important. In that portion lies the protection of the entire building.

One cannot be too careful in the selection of proper material.

We are not the only manufactnrers of iron and steel roofing, but claim there are none in the business who can or do furnish, either a better quality or plan of construction.

With carefully selected materials, honest linseed oil paint and skillful workmanship, our goods must stand among the best.

If you want inferior material do not call on us, we do not make it.

We consider honest goods at a reasonable price the best policy, both for maker and consumer.

We furnish samples free, on request.

Gauges and Weights.

All our sheets are rolled by the Birmingham Gauge, as given in Haswell's Engineers' Book, as follows :

Birmingham Gauge.

Number of Gauge	27	26	24	22	20	18	16
Weight in pounds (per square foot flat).	.64	.72	.88	1.12	1.40	1.96	2.60

The above gauge was adopted as the standard by the National Iron Roofing Association. Some manufacturers in our line, however, use the American Gauge. Thereby the buyer is often deceived and pays for material not received. For differences in weights see the following table :

American Gauge.

Number of Gauge	27	26	24	22	20	18	16
Weight in pounds (per square foot flat).	.57	.64	.81	1.02	1.28	1.62	2.04

Iron Roofing, Siding and Ceiling.

We use nothing but the very best refined iron for our Crimped, Beaded, Corrugated and Weather-Boarding Sheets, always having in stock sheets 3, $3\frac{1}{2}$, 4, $4\frac{1}{2}$, 5, 6, 7, 8, 9 and 10 feet long. Unless otherwise ordered, we furnish the sheets in 8 foot lengths and No. 27 gauge, painted both sides with our Red Iron Ore Paint.

If less than car load we ship in crates. Car load lots without.

Heavy gauges of iron or steel, painted or unpainted, also galvanized iron or steel, furnished on short notice.

Uniform Rule of Measurement.

All iron and steel roofing, siding and ceiling is sold by the square. (100 square feet.)

To Calculate a Square.

"The Kanneberg Patent," take the actual covering width and full length of material.

The Crimped, Beaded and Weather-Boarding, take the actual covering width and full length of sheets.

Corrugated Iron, take the full width and length of sheets.

Gutters and Valleys, take the full width and length of material.

How to Order.

Specify the style and kind of material wanted.

Fill out the diagram in ordering sheet furnished with price list and follow the instructions given there.

If requiring any extras, such as Wood Strips, Ridge Roll, Corner Boards or any of the necessities, such as Dry Paint, Mixed Paint, Nails, etc., clearly state kind, size and quantity.

Testimonials.

We have hundreds of *unsolicited* testimonials, but have never felt the necessity of publishing them in order to place our product on the market.

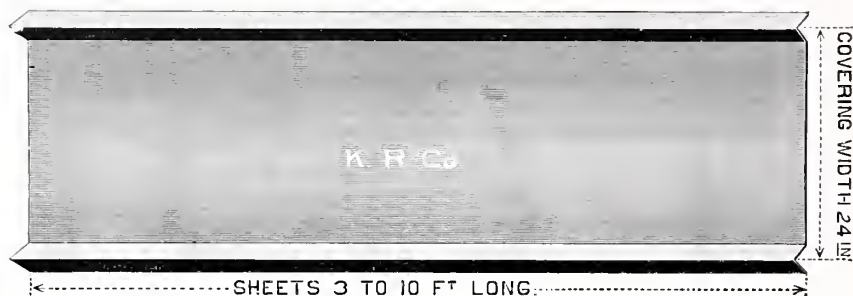
Our goods are well known, equal to the best, and give perfect satisfaction.

Give us a trial and you will find that the established principle of honest goods is sufficient to prove all our assertions.

V Crimped Iron Roofing.

Crimped Edge Iron.

Fig. 4.



As shown by above cut, each sheet has a crimp in V shape on each side. We can furnish it in gauges from No. 20 to 27 inclusive.

It may be applied to sheathing boards, lath, or over the old shingles, on any pitch not less than two inches fall to the foot.

The ends of the sheets can either be lapped 3 to 4 inches, according to pitch, or put together with a lock joint.

If for a ridge roof finish up ridge with Iron Ridging. (Page 20.)

The crimps at side lap over each other and over a wooden V strip to stiffen them. (We furnish the wood strips at cost.) Use a $1\frac{3}{4}$ -inch steel wire nail and drive through the top of crimps and wooden V strip into the sheathing boards.

This style of roofing is used largely on the cheaper class of buildings. It makes a cheap, durable and fire-proof roof.

Three Crimped Iron.

Fig. 5.



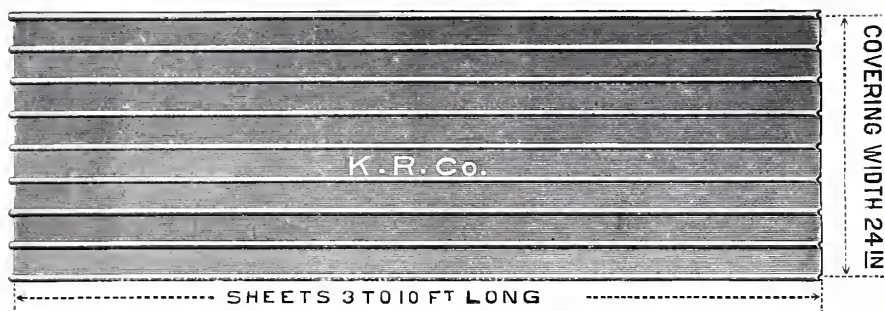
Shows a sheet of our Three Crimped Iron. We can furnish it in gauges from No. 20 to 27 inclusive.

The center crimp stiffens the sheet and adds to its appearance.

Can be used for either roofing or siding and is applied to and in the same manner as the Crimped Edge.

Beaded Iron.

Fig. 6.

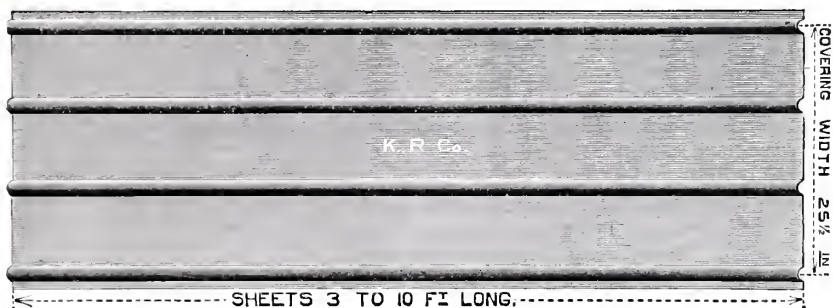


Shows a sheet of Beaded Iron, imitating 3-inch boards.

The beads are $\frac{1}{2}$ of an inch wide and $\frac{1}{8}$ of an inch deep and 3 inches apart from center to center.

This style we furnish in gauges of No. 26 and 27.

Fig. 7.



Shows a sheet of Our New Style Beaded Iron. The beads are $1\frac{3}{4}$ inches wide and $\frac{1}{2}$ of an inch deep, $8\frac{1}{2}$ inches apart from center to center. We can furnish it in gauges from No. 20 to 27 inclusive.

Beaded Iron is used for siding and ceiling. If used for siding it can be applied to sheathing boards, lath or direct to the studding. If used for ceiling, it can be applied to boarding, direct to the joist, or over the old plaster.

Give sheets 1 to 2 inches lap at ends and lap one bead at sides. Nail side laps about every 6 inches and end laps close to the beads for Fig. 6, close to and between the beads for Fig. 7.

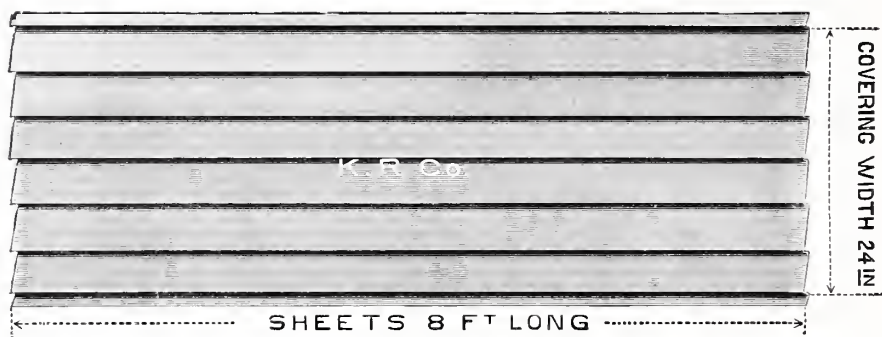
After laying, the ceiling can be painted any desirable color.

Beaded Iron is easily applied, is cheap, fire proof and durable.

NOTE.—Unless otherwise ordered we always ship sheets of Crimped and Beaded Iron 8 feet long and of No. 27 gauge, painted both sides with Red Iron Ore Paint.

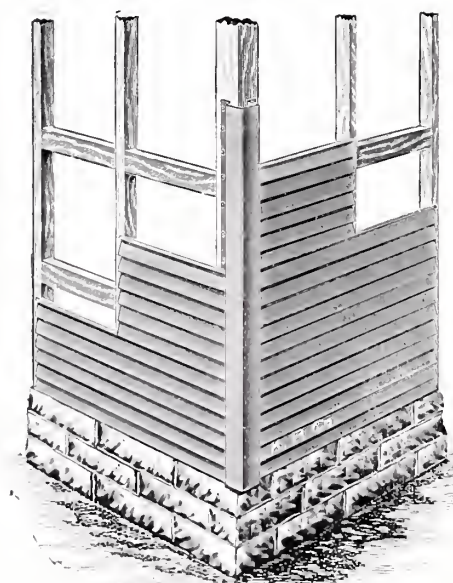
Iron Weather Boarding.

Fig. 8.



Shows a sheet of our Iron Weather Boarding. We furnish the sheets 8 feet long and of No. 27 gauge, painted both sides with red iron ore paint. Can be applied to either sheathing boards, or directly to the studding, placed sixteen inches apart from center to center.

Fig. 9.



Give sheets one to two inches lap at ends and lap one crimp at sides.

When applying to the studding, nail each stud at each crimp, when to sheathing boards place the nails along the horizontal laps, and every other crimp, sixteen to eighteen inches a part. Always nail immediately under the projecting crimp.

This style of siding makes an effective and durable substitute for wooden weather-boarding.

Those desiring a fire-proof building, the necessity of metal siding is apparent.

Fig. 9. Our metal "Corner Board" or Facing, should be used always, in finishing corners of buildings covered with Iron Weather-Boarding.

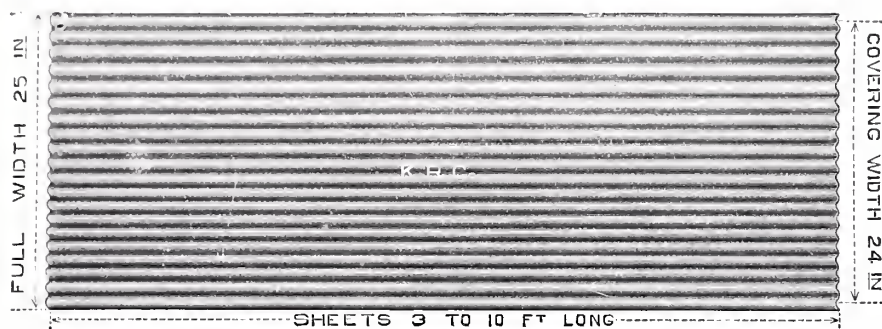
Corrugated Sheet Metal.

Corrugated Sheet Metal has been a recognized desirable style for many years. Is used for Siding, Ceiling, Roofing, etc. In architectural appearance can not be excelled. Is strong, rigid and durable, being a support in itself. A light inexpensive frame is allowable. It is a well known fire proof covering.

We make three sizes of pressed corrugations as follows:

One and One-Quarter Inch Corrugated Iron.

Fig. 10.



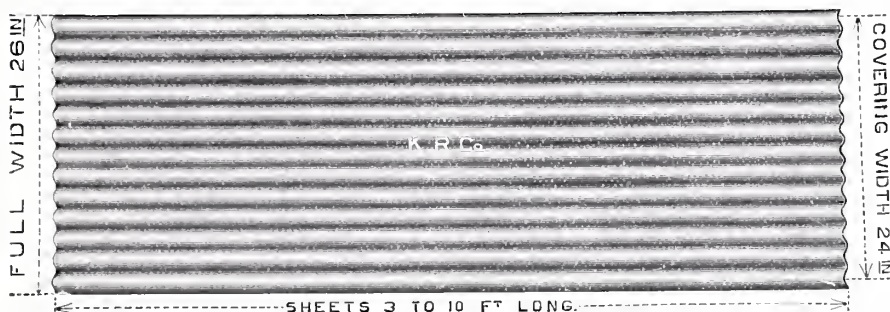
Shows a sheet of small corrugations, the size of which are $1\frac{1}{4}$ inches from center to center and $\frac{3}{8}$ inch deep.

Is suitable for siding and ceiling.

Furnished in gauges from No. 24 to 27 inclusive.

Two Inch Corrugated Iron.

Fig. 11.



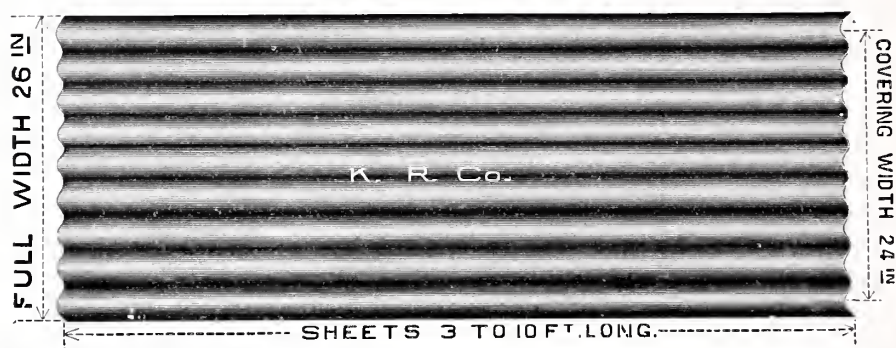
Shows a sheet of medium sized corrugations, the size of which are 2 inches from center to center and $\frac{1}{2}$ inch deep.

Is suitable for siding, ceiling and roofing.

Furnished in gauges from No. 20 to 27 inclusive.

Three Inch Corrugated Iron.

Fig. 12.



Shows a sheet of large corrugations, the size of which are three inches from center to center and three-fourth inch deep.

Is suitable for siding and roofing. Furnished in gauges from No. 18 to 27, inclusive.

Corrugated Awning.

Fig. 13.



Shows a curved iron sheet, used for permanent awnings. Is usually applied to a wooden frame, or light iron structure.

Corrugated Iron Siding.

Fig 14.

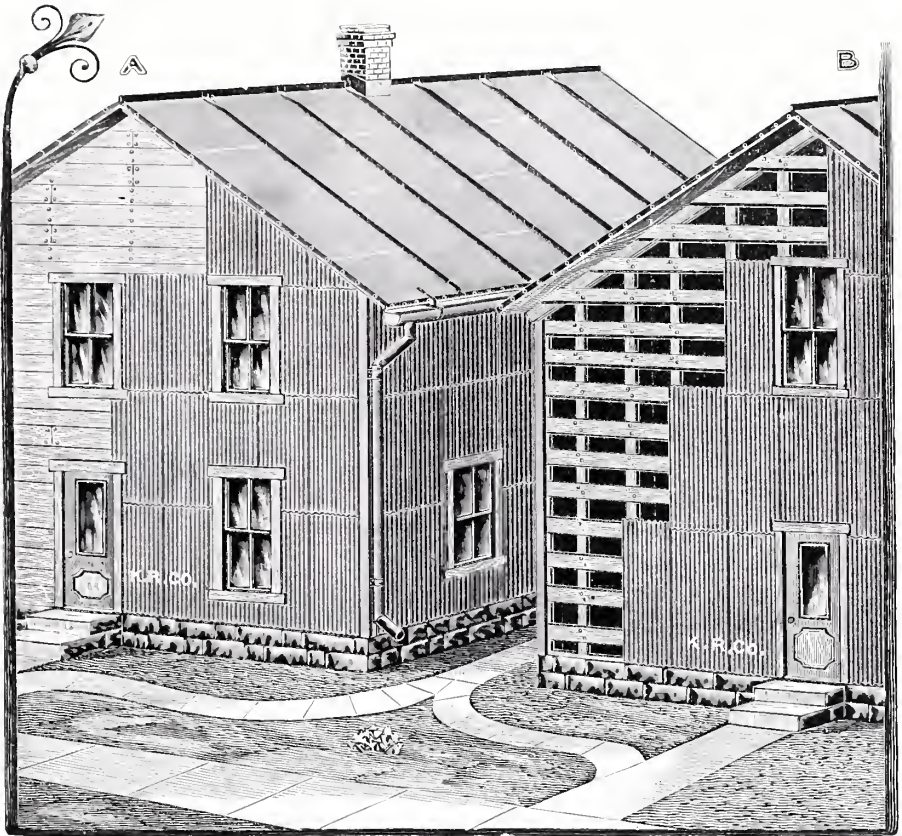


Fig. 14 shows our Folded Lock Seam Steel Roofing in place, and the application of our corrugated siding, (A) to sheathing boards, (B) to lath nailed across the studding. Use sheets of $1\frac{1}{4}$ inch or 2 inch corrugations. Commencing at bottom lap one corrugation at side, (see Fig. 15) running first course across, put the second course on in the same manner, lapping ends of sheets one to two inches over first course. Nail through the side laps on top the corrugations and the end laps between the corrugations.

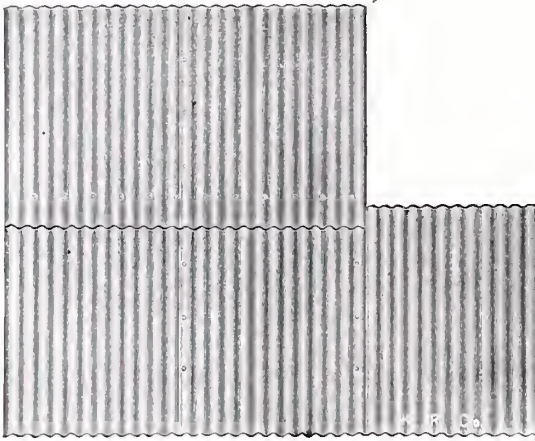
Fig. 15.



Shows sheets lapped one corrugation at sides.

Corrugated Elevator Siding.

Fig. 16.



Shows our Corrugated Elevator Siding. Corrugations same as Fig. 11.

Full width of sheets 26 inches, covering width 24, length 32 inches.

This style of corrugated siding is especially adapted to high buildings, liable to much settling.

Metal Corner "Board" or Facing.

Fig. 17.



For use on corners of buildings where metal siding is used. Regular length 8 feet.

(For application see Fig. 9.)

Fig. 18.

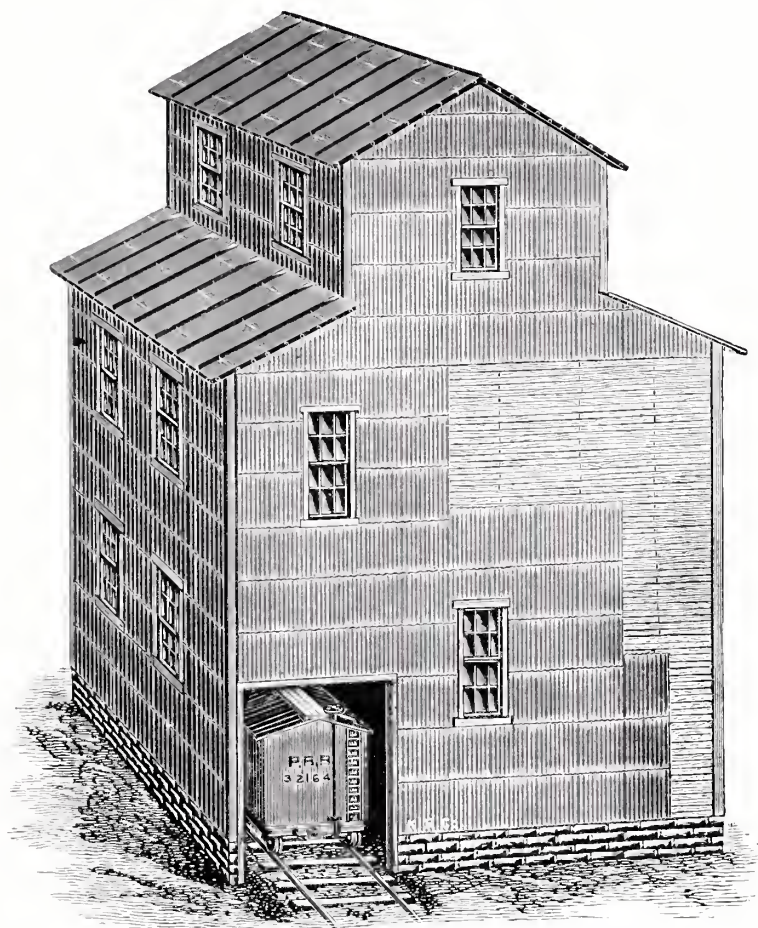


Fig. 18 shows our Folded Lock Seam Steel Roofing in place, and the application of our Corrugated Elevator Siding to plank sides.

Lap sheets one corrugation at sides and one inch at ends. Drive the nails between the corrugations and one inch above the edge of the lower course (see Fig. 16), thus allowing the sheets to slip in case the building settles.

Corrugated Iron Ceiling.

Sheets of $1\frac{1}{4}$ or 2 inch corrugations are usually used for Corrugated Iron Ceilings. Can be applied directly to the joists, or over the old plaster.

Lap one corrugation at sides and 1 inch at ends.

Is suitable for flat ceilings and can be painted any color when laid.

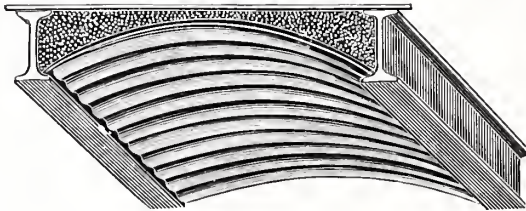
Curved Corrugated Ceiling.

Fig. 19.



Shows a sheet of our Curved Corrugated Iron Ceiling. Furnished in sheets of either 2 or 3 inch corrugations and any gauge from 16 to 27 inclusive.

Fig. 20.



Shows application of curved sheet on iron flange of iron floor beam, the space above being filled with concrete. These arches are used for ceilings in fireproof buildings. Being lighter, cheaper and better than arches of brick, have largely supplanted them. Prices quoted on specifications only.

Corrugated Iron Roofing.

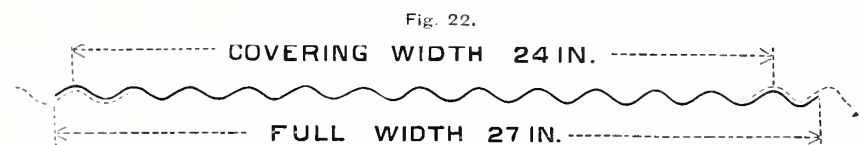
Directions for Applying to Sheathing Boards.

Commence to lay the sheets from the eaves, covering the left hand corner with first sheet projected one corrugation over the side and three to four inches over the eaves.

Hammer the projecting corrugation at side down against the edge of sheathing, nailing it in place about every four inches.

Continue laying sheets, lapping them four to six inches at ends, until they reach the ridge.

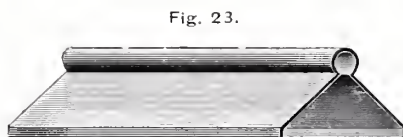
Commence second course at eaves in same manner, lapping one corrugation at sides. We advise sheets corrugated, so as to give $1\frac{1}{2}$ corrugations on side lap, as shown in figures 21 and 22.



Although more expensive, is more effective and absolutely water-proof.

Nail through the top of every other corrugation at end laps, and about every twelve inches at side laps.

If the roof is a ridge roof, finish up ridge with metal Ridge Roll, or V Ridge Capping, and Corrugated Wooden Ridge Joint.



Shows our Ridge Roll, made of Galvanized Steel or Black Steel, painted; sizes, 1, $1\frac{1}{2}$, 2, $2\frac{1}{2}$ and 3 inch roll. Regular length, eight feet.

Fig. 24.



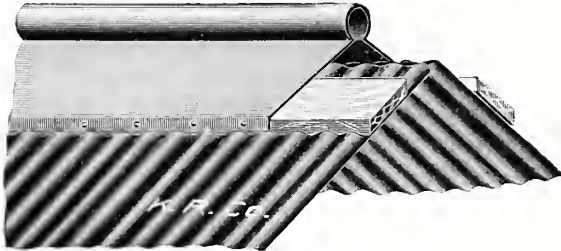
Shows V Ridge Capping. It does not make as finished an appearance as fig. 23, but is fully as good and not so expensive. Regular length eight feet.

Fig. 25.



Shows Wooden Ridge Joint. Regular length four feet.

Fig. 26.



Shows Ridge Roll, placed over and nailed to the Wooden Ridge Joint, thus completing the ridge.

Fig. 27.

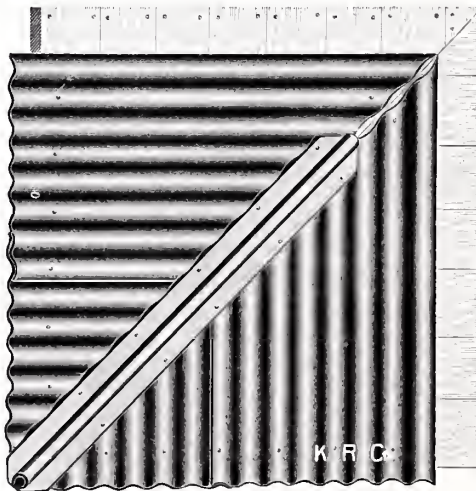


Fig. 27. For a hipped roof, cut the corrugated iron up the hip and nail the ridge roll over it.

Fig. 28.

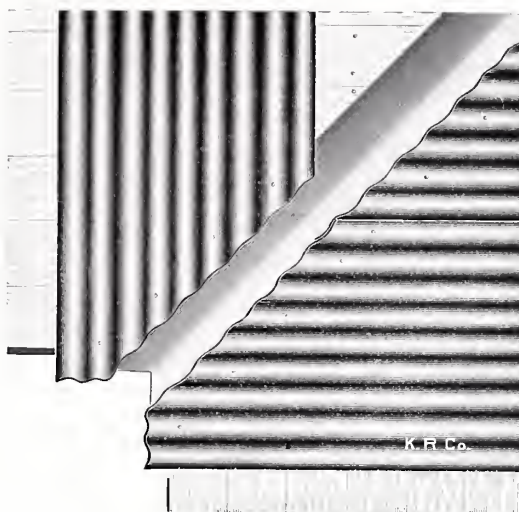
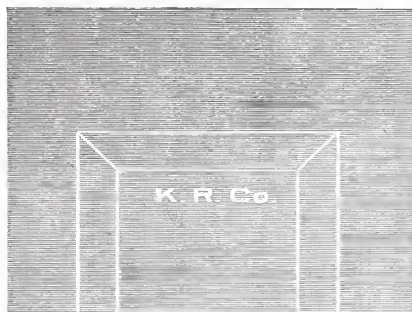


Fig. 28. For a roof with a valley, form a sheet of plain painted iron 18 to 24 inches wide, to fit in the valley, cut the corrugated iron up the valley, allowing five to six inches lap over the plain iron. Nail through the top of every other corrugation.

For flashing around a chimney. Lay the corrugated iron close to the lower side of chimney, take a piece of plain painted iron, cut in, turning up a flange four inches high and the width of chimney, fit to the lower side of chimney and over the corrugated iron. Then take a piece of the plain iron and mark to cut as shown in

Fig. 29.



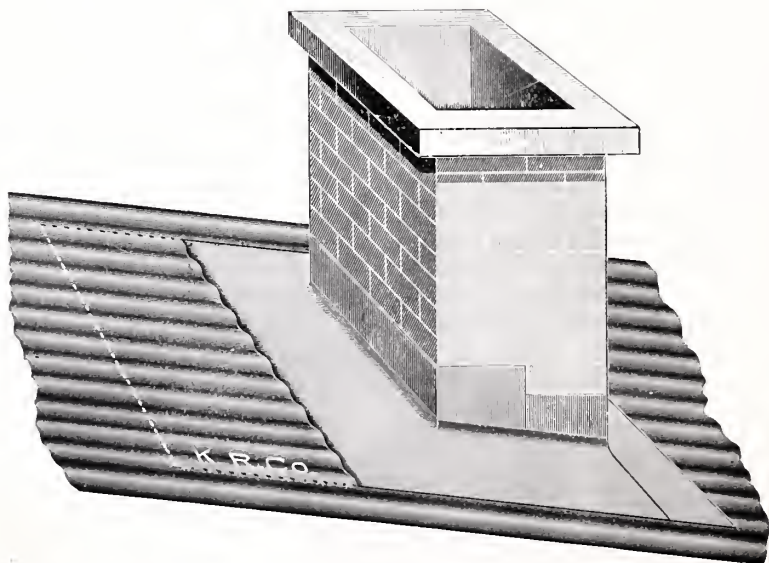
Cut at inside lines and turn up a flange four inches high at outside lines, as shown in

Fig 30.



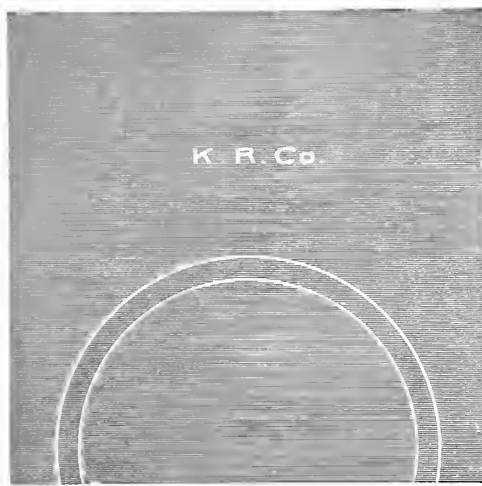
Fit to the upper side of chimney, lapping over the projected sides of lower piece. Extend the corrugated iron at the two sides and upper end twelve inches over the plain iron and within six inches of chimney. Cut corner pieces of iron to fill out corners at chimney left open; use plenty of cement and counter flash over the flanges of plain sheet, as shown in

Fig 31.



For flashing around a round stack, take two pieces of plain painted sheet iron of proper size, mark to cut so as to leave a 1 to 2 inch flange as shown in

Fig. 32.



Turn up flange as shown in

Fig. 33.



Fit one piece to lower side of chimney over the corrugated iron, and the other piece to upper side of chimney under the corrugated iron. Use plenty of cement and finish up as shown in

Fig. 34.

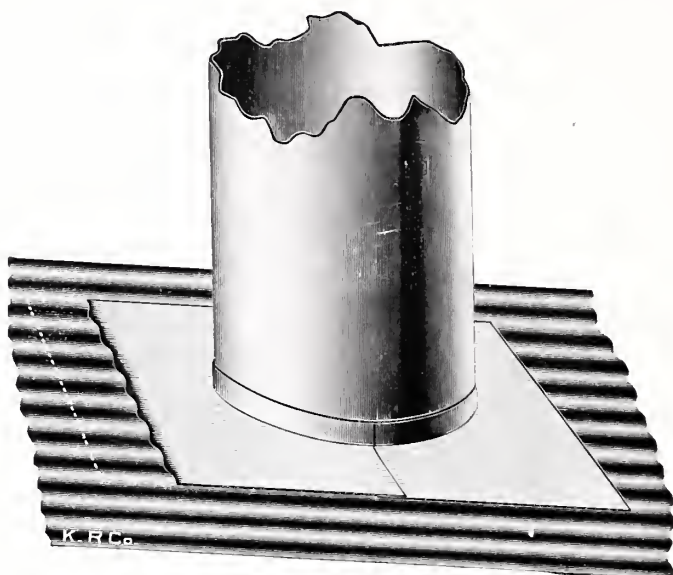


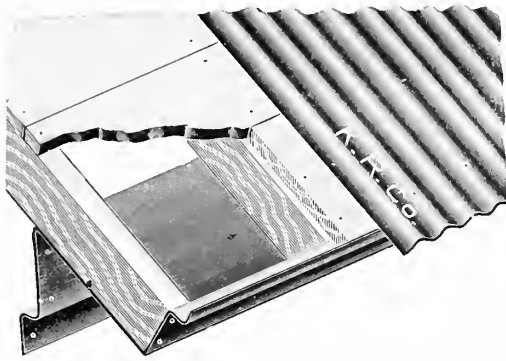
Fig. 35.



Shows our Metal Side Flashing.

Regular length 8 feet. Is used for side flashing against walls, buildings, etc.

Fig. 36.



Shows our Iron Cornice nailed to rafters and sides of building. Can be made to fit under the eaves of any roof, provided we know the exact pitch, thickness and width of eaves. Made of black painted or galvanized iron, in eight foot lengths. Prices quoted on specification only.

Roofing on Wood or Iron Trusses.

Begin to lay the sheets at the eaves in same manner as when applying to sheathing boards, lap the sheets six inches at ends, and nail through the top of every other corrugation across the sheets on wooden supports, lap sheets $1\frac{1}{2}$ corrugations on side, as shown in figures 21 and 22, riveting them together every twelve inches. If on iron supports, take a piece of band iron three-fourth inch wide, pass around support and securely rivet at both ends to corrugated iron.

Distance Between Supports.

No. 18 gauge can be used on supports 6 to 7 feet apart.

No. 20 to 22 gauge can be used on supports 4 to 5 feet apart.

No. 24 gauge can be used on supports 2 to 4 feet apart.

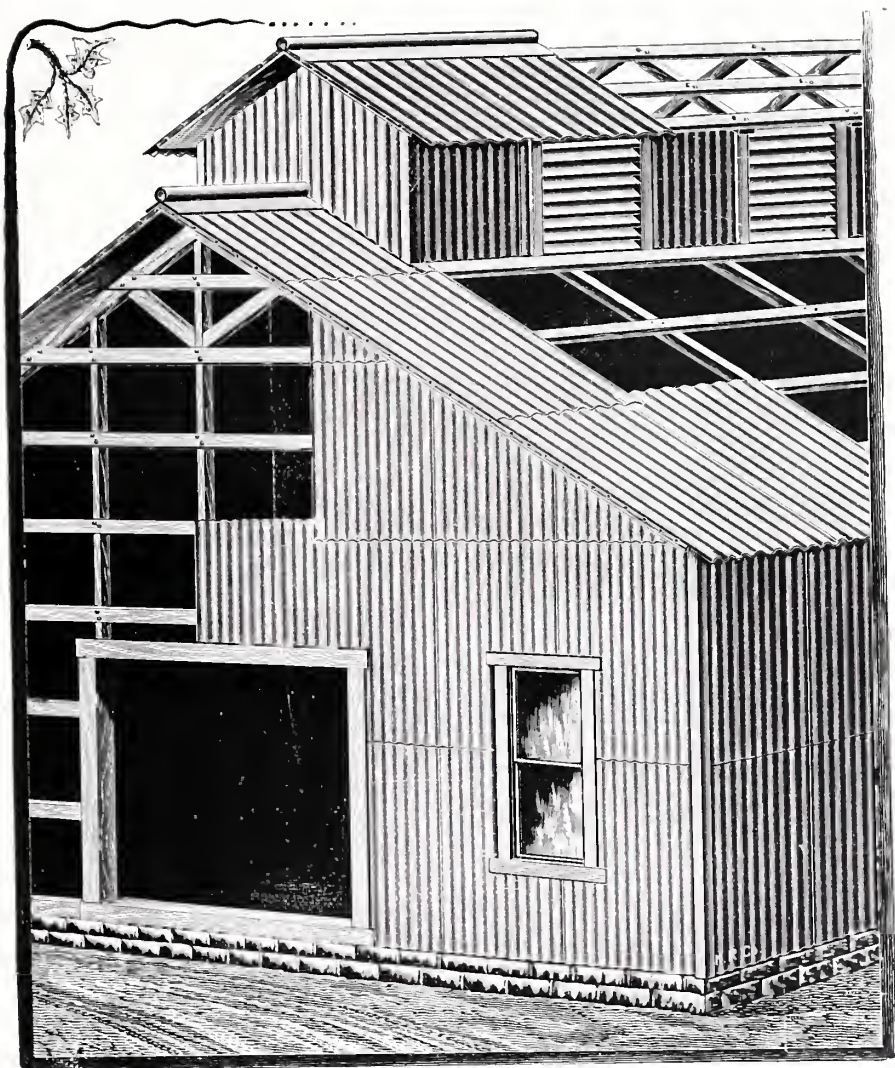
No. 26 gauge can be used on supports 2 feet apart.

No. 27 gauge can be used on supports 1 to 2 feet apart.

No. 27 gauge, when used for roofing, had better be applied to sheathing boards, or 6 inch strips placed 3 to 6 inches apart. When siding is to be applied perpendicularly to the studding, the studs should be 2 feet apart from center to center, with a piece of wood nailed between them to nail ends of sheets to.

If posts are used, girts must be placed 2 to 8 feet apart.

Fig. 37



Shows application of heavy gauge corrugated iron to wooden supports four feet apart. The roof represents three-inch corrugated iron, with ridge roll in place, the sides two-inch corrugated iron, with metal corner board in place.

Fire Proof Doors and Shutters.

Fig. 38.



The body of these shutters are made of wood and covered each side with beaded iron, which projects an inch at top and sides of shutter and is riveted every three inches.

It has been demonstrated to a certainty, that shutters and doors constructed in this manner, have stood the test of extreme heat much better than solid iron.

We furnish eyes for brick, stone and frame buildings.

When ordering, follow instructions as given in ordering sheet.

Building and Sheathing Paper.

"NEPONSET."

Fig. 39.



First Quality, No. 1 Neponset Red Rope Roofing Fabric,
 Second " " 2 " " " "
 Third " Black Neponset.

These papers are the best known for lining between floors, side walls, or under roofs. They are absolutely water-proof and air-tight.

No. 1 or 2 "Neponset" make a good roof for temporary, or cheap buildings, such as poultry houses, etc.

Put up in rolls containing 500 square feet.

Dry Rosin Sized Felt.

This paper is not water-proof, but makes a good cheap lining.

Put up in rolls containing 800 square feet.

Lining paper should always be used where sulphur-fumes, steam, or warm air will come in direct contact with the under side of roof.

It deadens sound and is a non-conductor of heat and cold.

Paint.

Dry Iron Ore Paint.

This material, which is Red Oxide of Iron, is considered one of the best pigments known for the protection of metal. It has been subjected to the severest practical tests for a number of years, always with satisfactory results. Put up in 100 lb. kegs and bbls. of 400 lbs.

Mixed Iron Ore Paint.

Fig. 40.



We make this paint of Linseed Oil mixed with the Oxide of Iron ground in oil. Colors—Bright Red, Red and Prince's Brown.

Mixed Graphite Paint.

We make this paint of Linseed Oil mixed with Graphite ground in oil. Its color is a very dark slate approaching a steel black.

Graphite or Plumbago has long been known as a protection to metal; acid, sulphur fumes, salt, gases, etc., have no effect on it.

MIXED PAINT.

There is nothing that can compare to linseed oil for paint, it is durable, adhesive and in itself a protection to metal.

We put up our mixed paint in impervious kits, 1 to 10 gallons, kegs 15 to 25 gallons, barrels 50 gallons.

Is ready for the brush, contains no impurities, and is in the most convenient form for the customer.

As paint is a necessity to exposed metals, it is obvious, that the purer the paint the better the protection.

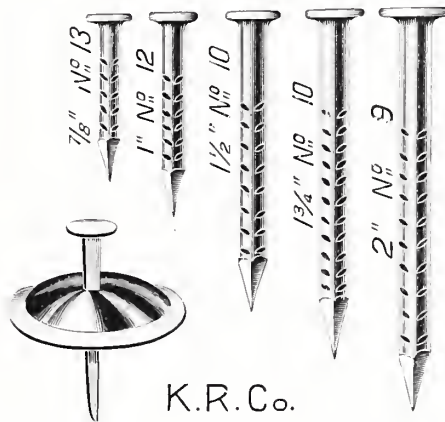
Elastic Cement

Is very valuable to use for finishing up flashings, gutters, valleys, etc.

Is also useful in laying all kinds of roofing and siding, its presence rendering the joints or laps absolutely water-tight. Will adhere to all surfaces and stop a leak in any kind of a roof. Put up in 6 $\frac{1}{4}$ and 12 $\frac{1}{2}$ pound boxes.

Steel Wire Barbed Nails

Fig. 41.



Should be used for all kinds of metal roofing, siding and ceiling, as follow :

Nos. 12 and 13 for The Kanneberg Patent Folded Lock Seam Steel Roofing, except when applying over the old shingles, then use 1 3/4 inch No. 10.

1 1/2 inch No. 10 for all kinds metal siding and ceiling.

1 3/4 inch No. 10 for Corrugated and Crimped Iron Roofing.

No. 9 for Corrugated Iron, when applied to supports.

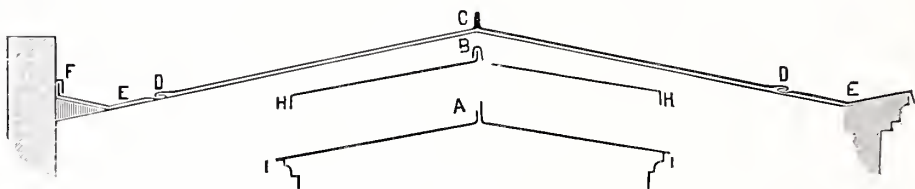
The nail with tin cap is used for Neponset paper roofing.

How to Order Roofing, Siding, Etc.,

For the Kanneberg Patent Folded Lock Seam Steel Roofing.

Allow for ridge seam, laps at edges and flashing as shown in

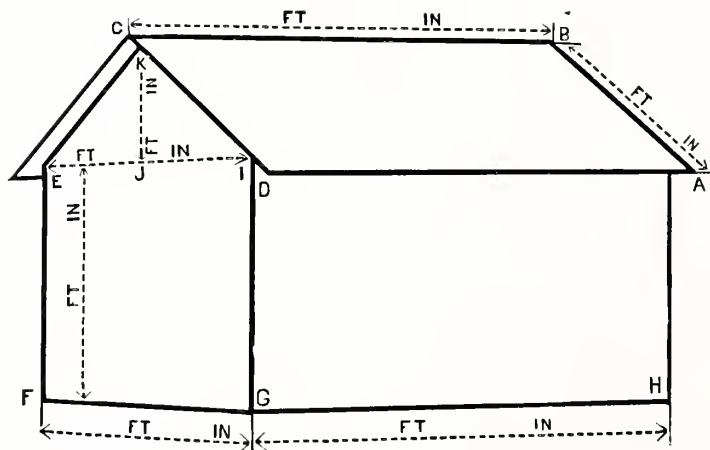
Fig. 42.



A, shows the one inch and two inch flanges turned up at ridge. B, the two inch flange seamed over the one inch flange. C, the ridge seam finished. D, gutter attached to roof by flat lock. E, gutter flashed to brick fire wall. F, counter flashing on fire wall. G, brick fire wall. H, laps at eaves. I, drip at eaves.

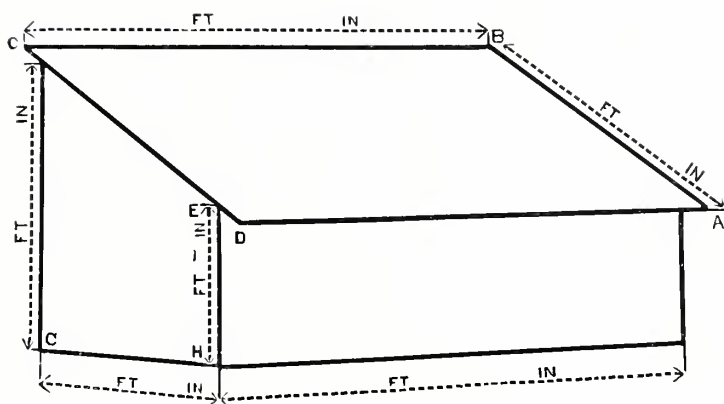
For Ridge Roof Building and Siding, furnish dimensions as indicated by

Fig. 43.



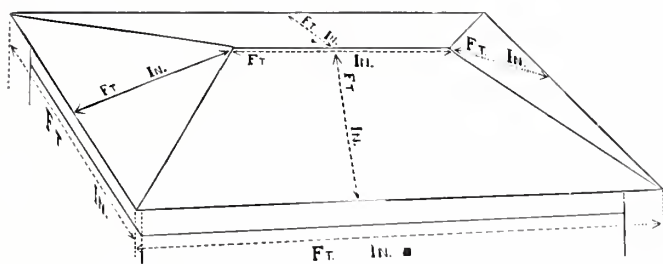
For shed Roof Building and siding, furnish dimensions as indicated by

Fig. 44.



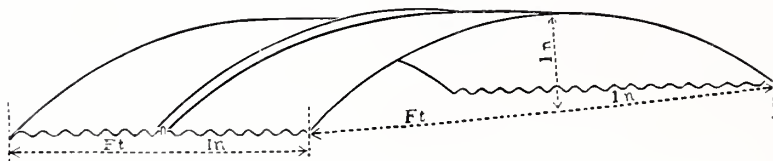
For Hip Roof, furnish dimensions, as indicated by

Fig. 45.



For Curved Sheets, state whether for roofing or ceiling and furnish directions as indicated by

Fig. 46.



Allow for projections, if for roofing, give number and length of sheets and radius required.

If for ceiling make base line from $\frac{1}{4}$ to $\frac{3}{8}$ inch less distance between webs of I beams. Give rise of sheet and length and number of sections; when shoes are used, state thickness of iron used in same with sketch of shoe.

When ordering fire-proof Shutters and Doors, fill out diagram like one of the Figs. 47 and 48.

Fig. 47.

For Square Head
Windows or Doors.

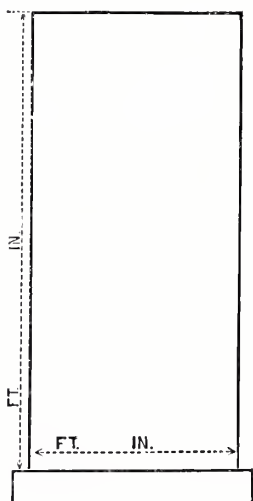
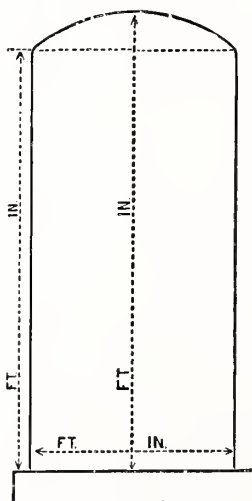


Fig. 48.

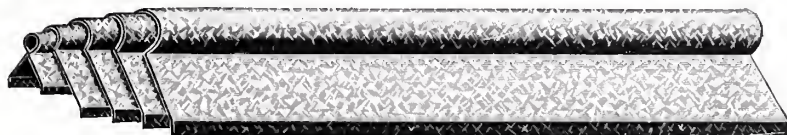
For Circle Head
Windows or Doors.



Give exact length and width of each opening in feet and inches, as shown on diagram. For circle heads give rise of arch. Be careful to state the number of each size wanted.

Galvanized Steel Ridging.

Ridge Roll.



In lengths of $10\frac{1}{2}$ feet (126 inches) without a seam.

PRICE LIST.



$1\frac{1}{2}$ Inch Ridging.

Diameter of Roll	$1\frac{1}{2}$ in.
Width of Apron.....	2 in.
Girt	8 in.
PRICE	10 cts. per ft.



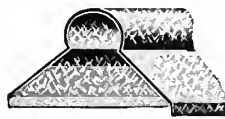
2 Inch Ridging.

Diameter of roll.....	2 in.
Width of Apron.....	$2\frac{1}{2}$ in.
Girt	10 in.
PRICE	12 cts. per ft.



$2\frac{1}{2}$ Inch Ridging.

Diameter of Roll.....	$2\frac{1}{2}$ in.
Width of Apron.....	$2\frac{1}{2}$ in.
Girt	12 in.
PRICE	14 cts. per ft.



3 Inch Ridging.

Diameter of Roll.....	3 in.
Width of Apron.....	$3\frac{1}{2}$ in.
Girt	15 in.
PRICE.....	17 cts. per ft.

DISCOUNT.....Per Cent.

V Ridge Capping.



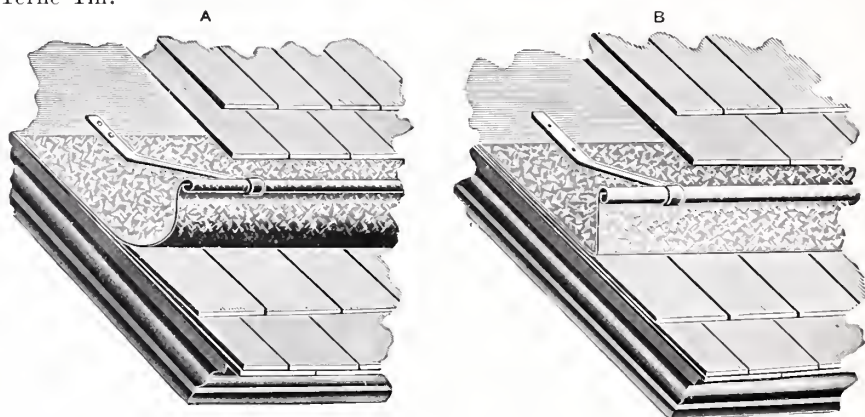
PRICE LIST.

3 inch Apron.	Girt 6 inches.	Price .....	.07 $\frac{1}{2}$ per ft.
$3\frac{1}{2}$ inch Apron.	Girt 7 inches.	Price .....	.08 $\frac{1}{2}$ per ft.
4 inch Apron.	Girt 8 inches.	Price .....	.09 $\frac{1}{2}$ per ft.

DISCOUNT.....Per Cent.

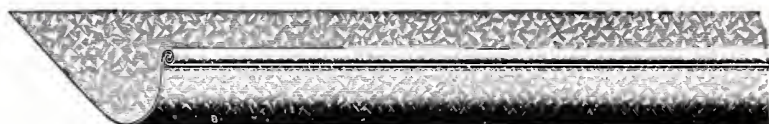
Roof Gutters.

Made in eight foot lengths of Galvanized Steel and Old Fashioned INX Terne Tin.



PRICE LIST.

Style A.



	Galvan- ized.	Old Fashioned INX Terne Tin
14 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.24	.18
20 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.32	.24
24 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.36	.28

Style B.



	Galvan- ized.	Old Fashioned INX Terne Tin
15 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.25	.19
18 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.30	.22
20 inch Girt, $\frac{5}{8}$ or $\frac{3}{4}$ inch bead, per foot .....	.32	.24

DISCOUNTS.	{ Galvanized.....	per cent.
	{ Tin	per cent.

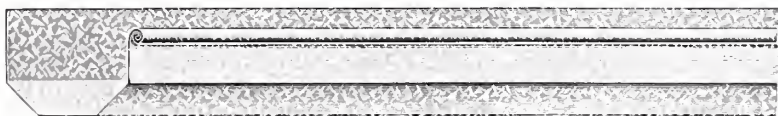
Hangers for above Trough.....3 cents each, net

Quarter Circle, O. G. and Box Gutters.

Made in 8 foot lengths, of Galvanized Steel and Old Fashioned IXX Terne Tin. Backs of trough same height as bead end.

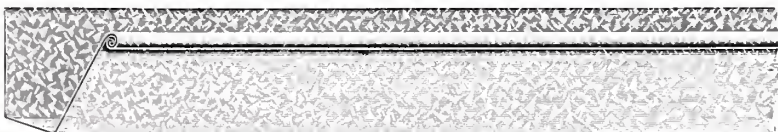
For high backs, ADD ONE CENT per foot to List Price for each additional inch added to back.

PRICE LIST.



Style C.

Size.....	5 inches	6 inches	7 inches
Depth.....	3 $\frac{1}{2}$ inches	4 $\frac{1}{4}$ inches	4 $\frac{1}{2}$ inches
Girt.....	12 inches	14 inches	16 inches
Galvanized.....	22 per ft	24 per ft	26 per ft
IXX Terne.....	16 per ft	18 per ft	20 per ft



Style D.

Size.....	6 inches	7 inches	8 inches
Depth.....	4 inches	5 inches	5 $\frac{3}{4}$ inches
Girt.....	15 inches	18 inches	20 inches
Galvanized.....	25 per ft	30 per ft	32 per ft
IXX Terne.....	19 per ft	22 per ft	24 per ft



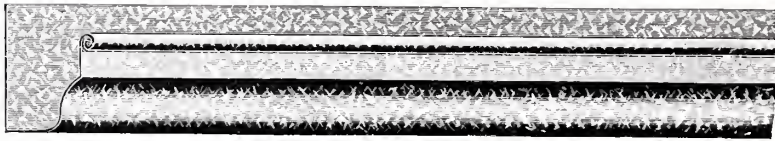
Style E.

Size.....	6 inches	7 inches	8 inches
Depth.....	4 $\frac{1}{2}$ inches	5 $\frac{1}{2}$ inches	7 inches
Girt.....	15 inches	18 inches	22 inches
Galvanized.....	25 per ft	30 per ft	34 per ft
IXX Terne.....	19 per ft	22 per ft	26 per ft



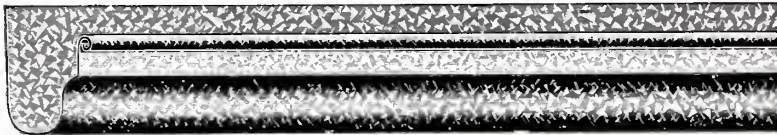
Style F.

Size.....	6	inches.....	7	inches.....	8	inches.
Depth.....	5 $\frac{1}{2}$	inches.....	6	inches.....	7	inches.
Girt.....	18	inches.....	20	inches.....	22	inches.
Galvanized.....	30	per ft.....	32	per ft.....	34	per ft.
IXX Terne.....	22	per ft.....	24	per ft.....	26	per ft.



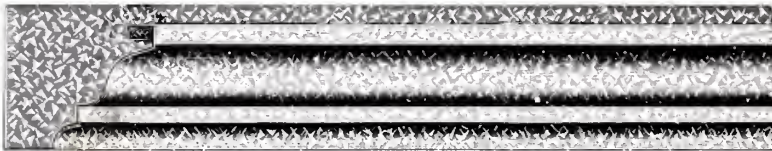
Style G.

Size.....	6	inches.....	7	inches.....	8	inches.
Depth.....	5 $\frac{1}{2}$	inches.....	6 $\frac{1}{2}$	inches.....	7	inches.
Girt.....	17	inches.....	20	inches.....	22	inches.
Galvanized.....	30	per ft.....	32	per ft.....	34	per ft.
IXX Terne.....	22	per ft.....	24	per ft.....	26	per ft.



Style H.

Size.....	6	inches.....	7	inches.....	8	inches.
Depth.....	4	inches.....	4 $\frac{3}{4}$	inches.....	5 $\frac{1}{2}$	inches.
Girt.....	13	inches.....	16	inches.....	18	inches.
Galvanized ..	24	per ft.....	26	per ft.....	30	per ft.
IXX Terne.....	18	per ft.....	20	per ft.....	22	per ft.



Style J.

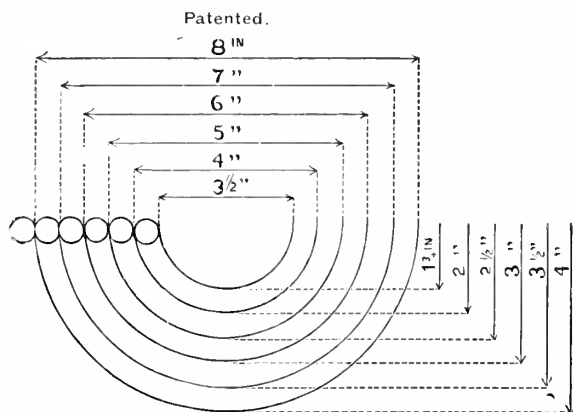
Size.....	6	inches.....	7	inches.....	9	inches.
Depth.....	5 $\frac{3}{4}$	inches.....	6 $\frac{1}{2}$	inches.....	8	inches.
Girt.....	18	inches.....	20	inches.....	24	inches.
Galvanized ..	30	per ft.....	32	per ft.....	36	per ft.
IXX Terne.....	22	per ft.....	24	per ft.....	28	per ft.

DISCOUNT { Galvanized Per Cent.
 { Tin. Per Cent.

Eave Trough, Conductor Pipe, Etc.

Kanneberg's Slip Joint Eave Trough.

No Soldering Required.



NOTE.—Sizes taken inside of Bead.

Made of Galvanized Steel in 10 foot lengths, and Old Fashioned IXX Terne Tin in 8 foot lengths.

PRICE LIST.

Galvanized Steel.	Per Foot.	Old Fashioned IXX Terne Tin.	Per Foot.
3 1/2 inch.	.13	3 1/2 inch.	.09
4 inch.	.14	4 inch.	.09 2/3
5 inch.	.16	5 inch.	.10 2/3
6 inch.	.18	6 inch.	.11 1/2
7 inch.	.20	7 inch.	.15
8 inch.	.22	8 inch.	.16 1/2

DISCOUNTS. { Galvanized ... per cent.
 { Tin ... per cent.

Cases for Troughs, at cost.

When ordering Slip Joint Trough, state whether right or left is wanted, otherwise half right and half left will be shipped.

When bead is wanted on both sides of trough, 3 cents per foot is added to List Price.

Kanneberg's Lap Joint Eave Trough.

Made of Old Fashioned IC Terne Tin in 5 foot lengths, Old Fashioned IXX Terne Tin in 8 foot lengths and Galvanized Steel in 10 foot lengths.

PRICE LIST.

Old Fashioned IC Terne Tin.		Old Fashioned IXX Terne Tin.	
	Per Foot.		Per Foot.
3½ inch.....	.07	3½ inch.....	.08
4 inch.....	.07½	4 inch.....	.08½
5 inch.....	.08	5 inch.....	.10½
6 inch.....	.09	6 inch.....	.12½
7 inch.....	.10	7 inch.....	.14
8 inch.....	.11½	8 inch.....	.15½
Galvanized Steel.		Per Cent.	
	Per Foot.	DISCOUNTS	
3½ inch.....	.13		
4 inch.....	.14	{ Galvanized.....	
5 inch.....	.16	{ Tin.....	
6 inch.....	.18	Cases for Trough at cost.	
7 inch.....	.20		
8 inch.....	.22		

When bead is wanted on both sides of trough, 3 cents per foot is added to list price.

Mitres.



Inside Corner Mitre.



Outside Corner Mitre.

PRICE LIST.

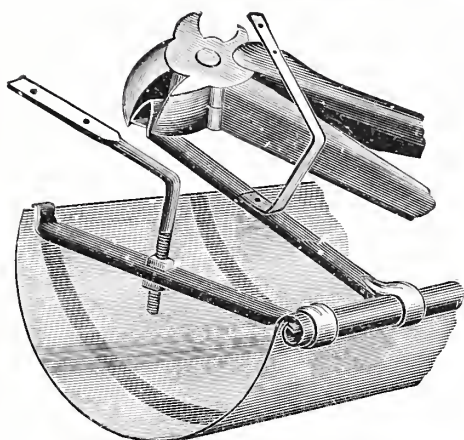
Galvanized Steel.		Old Fashioned IXX Terne Tin	
SLIP JOINT.		SLIP JOINT.	
3½ inch, per dozen, net...	\$2 40	3½ inch, per dozen, net...	\$1 65
4 inch, per dozen, net...	2 60	4 inch, per dozen, net...	1 90
5 inch, per dozen, net...	3 00	5 inch, per dozen, net...	2 40
6 inch, per dozen, net...	3 60	6 inch, per dozen, net...	3 25
LAP JOINT.		LAP JOINT.	
3½ inch, per dozen, net...	\$2 25	3½ inch, per dozen, net...	\$1 50
4 inch, per dozen, net...	2 35	4 inch, per dozen, net...	1 60
5 inch, per dozen, net...	2 75	5 inch, per dozen, net...	2 15
6 inch, per dozen, net...	3 25	6 inch, per dozen, net...	3 00

When ordering Slip Joint Mitres, state whether right or left hand is wanted, and whether for "Inside" or "Outside Corner," otherwise half rights and half lefts, and half "Inside" and half "Outside" Corner Mitres will be furnished.

KANNEBERG'S IMPERIAL Adjustable Eave Trough Hanger.

Patented.

Is a great labor saving hanger.



NO SOLDERING REQUIRED.

ICE CANNOT EFFECT THEM.

THEY SERVE AS BOTH A BRACE
AND HANGER.

UNEQUALLED IN
THEIR STRENGTH.

PRICE LIST.

JAPANNED.

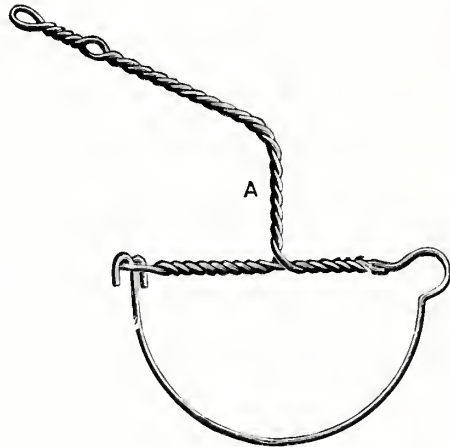
3 inch, with Rods and Nuts complete, per gross, net.....	\$ 3.75
3½ inch, with Rods and Nuts complete, per gross, net.....	4.00
4 inch, with Rods and Nuts complete, per gross, net.....	4.25
4½ inch, with Rods and Nuts complete, per gross, net.....	4.35
5 inch, with Rods and Nuts complete, per gross, net.....	4.50
6 inch, with Rods and Nuts complete, per gross, net.....	5.00
7 inch, with Rods and Nuts complete, per gross, net.....	6.00
8 inch, with Rods and Nuts complete, per gross, net.....	8.00

3 inch, with Straps riveted on Crossbars complete, per gross, net.....	\$ 3.50
3½ inch, with Straps riveted on Crossbars complete, per gross, net.....	3.50
4 inch, with Straps riveted on Crossbars complete, per gross, net.....	3.75
4½ inch, with Straps riveted on Crossbars complete, per gross, net.....	3.85
5 inch, with Straps riveted on Crossbars complete, per gross, net.....	4.00
Tongs to apply Hangers, each, net.....	.40
Hanger Rod Benders, net .....	.75

N. B.—Sizes taken inside of bead. In ordering, always state size of your beading rod. Hangers always sent with rods unless otherwise ordered.

Wire Eave Trough Hanger.

Patented.



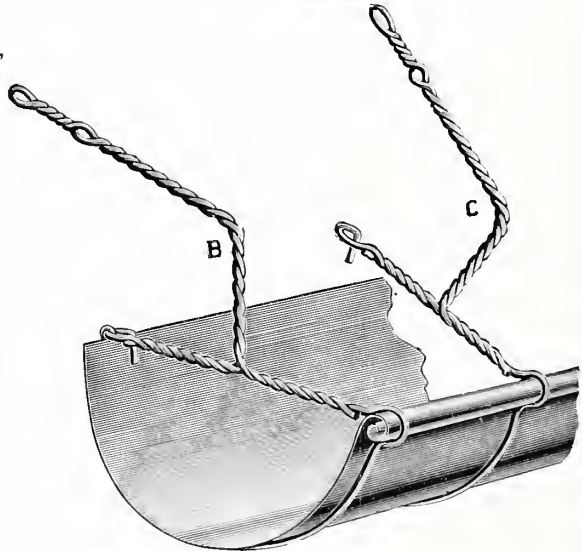
IS MADE OF :::

GALVANIZED STEEL WIRE,

SIMPLE IN CONSTRUCTION,

EASY TO APPLY,

IS CHEAP AND DURABLE.



PRICE LIST.

3 inch, per gross, net.....	\$2 00
3½ inch, per gross, net.....	2 25
4 inch, per gross, net.....	2 50
5 inch, per gross, net.....	2 75

N. B.—All Hangers sent with ½ inch beads, unless otherwise ordered.

Conductor Pipe.

Kanneberg's Expanding Corrugated Conductor.

Made of Galvanized Steel, Round or Square, and in 10 Foot Lengths.

PRICE LIST.

Round.

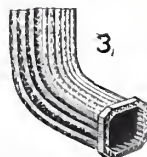
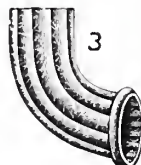
2 inch .....	.12
3 inch .....	.15
4 inch .....	.20
5 inch .....	.25
6 inch .....	.30

Square.

$1\frac{3}{4} \times 2\frac{1}{4}$ inches, equal to 2 inch Round.....	.12
$2\frac{3}{8} \times 3\frac{1}{4}$ inches, equal to 3 inch Round.....	.15
$2\frac{3}{4} \times 4\frac{1}{4}$ inches, equal to 4 inch Round.....	.20
$3\frac{3}{4} \times 5$ inches, equal to 5 inch Round.....	.25

Elbows and Shoes.

Round or Square.



PRICE LIST.

Sizes.	No. 1 per doz.	No. 2 per doz.	No. 3 per doz.
2 inch	\$2 50	\$3 00	\$3 50
3 inch	2 75	3 25	3 75
4 inch	3 50	4 00	4 50
5 inch	4 25	4 75	5 25
6 inch	4 75	5 25	5 85

In ordering Elbows and Shoes, please state the angles required, as shown above.

Discount.....per cent.

Plain Round Conductor.

Made of Galvanized Steel, Old Fashioned INX Terne Tin and Old Fashioned I. C. Terne Tin.



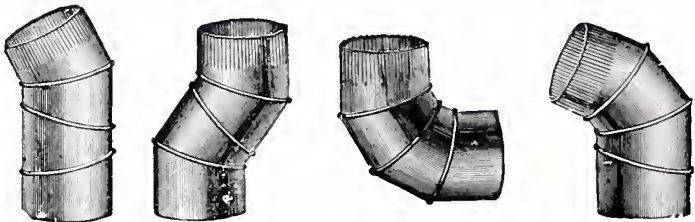
PRICE LIST.

Diameter.	Galvanized, Per Foot, 10 Feet Long.	INX Terne, Per Foot, 8 Feet Long.	IC Terne, Per Foot, 5 Feet Long.
2 inch.....	.12	.11	.09
3 inch.....	.15	.13	.11
4 inch.....	.20	.16	.13
5 inch.....	.23	.22	.17
5½ inch.....	.28	.25	.20
6 inch.....	.30	.28	.25

DISCOUNT. { Galvanized..... per cent.
Tin.....per cent.

Prices quoted upon application on larger sizes.

Adjustable Elbow.



PRICE LIST.

Size.	Galvanized Iron, Per Doz.	Tin, Per Doz.
1½ inch.....	\$ 2.40	\$ 1.80
2 inch.....	2.40	1.80
2½ inch.....	3.00	2.40
3 inch.....	3.60	2.40
3½ inch.....	4.20	3.60
4 inch.....	4.80	3.60
4½ inch.....	5.40	4.80
5 inch.....	6.60	4.80
5½ inch.....	7.80	6.60
6 inch.....	8.40	6.60
7 inch.....	10.20	8.40
8 inch.....	13.80	10.80
9 inch.....	15.50	12.60
10 inch.....	16.80	14.40

DISCOUNT.....per cent.

These Elbows can be adjusted to any angle between a straight line and a right angle.

Conductor Hooks.

Corrugated Hinged Hooks.



PRICE LIST.

Tinned.

	For Brick.	For Wood.
2 inch, per 100, net	\$3 00	\$4 00
3 inch, per 100, net	4 00	5 00
4 inch, per 100, net	5 00	6 00
5 inch, per 100, net	6 00	7 00



Plain Hinged Hooks

PRICE LIST.

Tinned.

	For Brick.	For Wood.
2 inch, per 100, net	\$3 50	\$2 50
3 inch, per 100, net	4 50	3 50
4 inch, per 100, net	5 50	4 50
5 inch, per 100, net	7 00	5 50
6 inch, per 100, net	8 50	



Hooks for Either Corrugated or Round Conductor.

PRICE LIST.

Tinned.

	For Brick.	For Wood.
2 inch, per 100, net	\$1 75	\$1 00
3 inch, per 100, net	2 75	2 00
4 inch, per 100, net	4 25	3 00
5 inch, per 100, net	6 00	4 00
6 inch, per 100, net	8 00	

Flashing Hooks.

PRICE LIST.

Tinned.

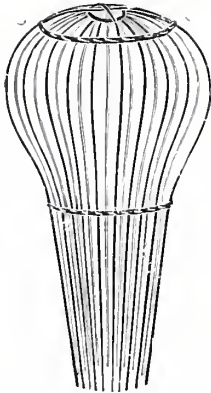
1½ inch, per 100, net	\$ 35
2½ inch, per 100, net	55
3½ inch, per 100, net	1 00
5½ inch, per 100, net	1 70

The large size will answer for Square Conductor Pipe.



Galvanized Conductor Strainers.

Are invaluable for keeping leaves and similar obstructions from getting into and stopping up the conductor pipe.

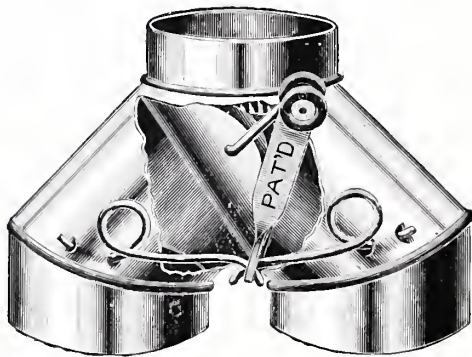


PRICE LIST.

2 inches diameter, per dozen, net	\$.60
3 inches diameter, per dozen, net .....	.75
4 inches diameter, per dozen, net	1.10
5 inches diameter, per dozen, net	1.40
6 inches diameter, per dozen, net	1.75

Rain Water Cut-Off.

Made of Galvanized Steel or Tin Japanned.



Simple in Construction.

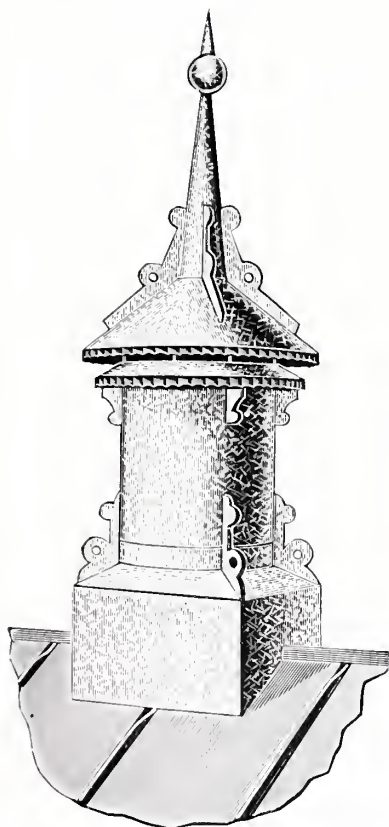
Cheap and Durable.

PRICE LIST.

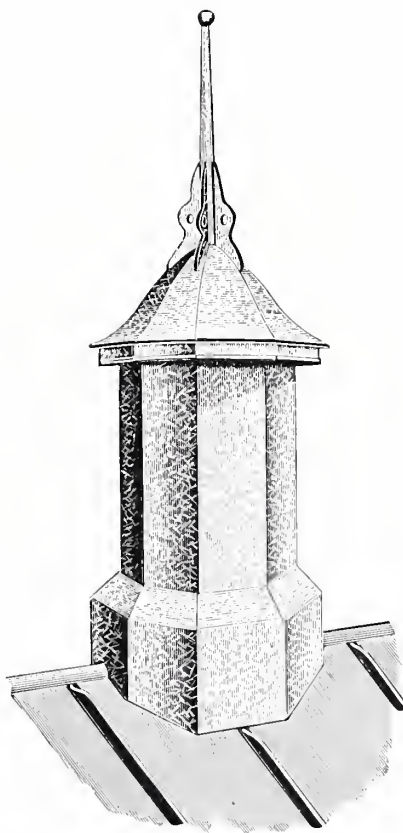
Tin Japanned.		Galvanized.	
2 inch, per dozen, net	\$ 3.00	2 inch, per dozen, net	\$ 4.20
2 1/2 inch, per dozen, net	3.00	3 inch, per dozen, net	4.80
2 3/4 inch, per dozen, net	3.40	4 inch, per dozen, net	7.20
3 inch, per dozen, net	3.60	5 inch, per dozen, net	12.00
3 1/2 inch, per dozen, net	4.80	6 inch, per dozen, net	14.00
4 inch, per dozen, net	5.40		
5 inch, per dozen, net	9.06		
6 inch, per dozen, net	12 00		

Ventilators.

For Barns, Factories and Other Buildings.



Style A. (Round.)



Style B. (Octagon.)

Made of Heavy Galvanized Steel,

PRICE LIST.

	Style A.	Style B.
No. 1—22 inch Base, 15 inch Drum, 6½ feet high	\$15 00	\$14 00
No. 28—2 inch Base, 21 inch Drum, 8½ feet high	18 00	17 00
No. 3—35 inch Base, 29 inch Drum, 11 feet high	22 50	21 50

DISCOUNT.... per cent.

Index.

	PAGE.
Advantages.....	7
American Tin	5
Arches.....	18
Awnings.....	14
Calumined Steel.....	5
Ceiling.....	18
Cement	31
Conductor Pipe.....	43, 44
Conductor Hooks.....	45
Corrugated Iron.....	13
Corner Board.....	12, 16
Cornice	25
Curved Corrugated Iron.....	18
Cut Offs.....	46
Distance Between Supports.....	26, 27
Eave Trough.....	39, 40
Eave Trough Hangers.....	41, 42
Elbows and Shoes.....	43, 44
Elevator Siding.....	16, 17
Flashings.....	7, 21, 22, 23, 24
Fire Proof Doors and Shutters	28
Galvanized Steel.....	5
Gauges and Weights.....	8
Gutters and Valleys.....	7, 21, 36, 37, 38
How to Order.....	9, 32, 33, 34
Mitres.....	40
Nails.....	31
Paint.....	30
Pitch.....	5, 10
Quality.....	7
Roofing—Kanneberg Patent Steel	5, 6, 7
Roofing—Crimped Iron	10
Roofing—Corrugated Iron.....	19
Roofing—"Xeponset"	29
Ridge Roll and Ridge Capping	19, 20, 35
Rule of Measurement.....	9
Sheathing Paper.....	29
Siding—Crimped Iron.....	10
Siding—Beaded Iron	11
Siding—Weather Boarding Iron.....	12
Siding—Corrugated Iron	15
Strainers	46
Testimonials.....	9
Tools.....	6
Ventilators	47
V Crimped Iron	10



